

Appendix F

Noise Study Report Summary

M-15 DEIS Noise Study Report Summary

The Noise Study Report, provided under separate cover, is a companion document to the Draft Environmental Impact Statement (DEIS) for the M-15 project between I-75 and I-69 in Oakland and Genesee Counties. The analysis was completed in compliance with the Federal Highway Administration (FHWA) noise regulation 23 CFR 772. The analysis was performed using the Transportation Noise Model – TNM1.1.

Traffic noise levels are expressed in decibels using an A weighted scale (dBA). That scale discriminates both high and low frequency sounds in a manner similar to the human hearing process. Traffic noise analysis use the descriptor L_{Aeq1h} , which can be thought of as the average noise level over a given time period, in this case, one hour.

The abatement criteria shown in Table F-1 were developed by FHWA. The noise levels in column 2 are defined by FHWA as those that should not be “approached or exceeded” at the exterior of residences, churches, hospitals, parks and libraries. “Approach” is defined in Michigan as 1 dBA, so the effective criterion is 66 dBA for consideration of mitigation. Noise mitigation must also be considered if a project results in a substantial increase (10 dBA or more) in noise levels.

**Table F-1
Noise Abatement Criteria
(Hourly A-Weighted Sound Level-decibels [dBA])**

Activity Category	Abatement Level (in L_{Aeq})		Description of Activity Category
	FHWA	MDOT	
A	57	56 (Exterior)	Lands on which serenity and quiet are of extraordinary significance and where the preservation of those qualities is essential, if the area is to continue to service its intended purpose.
B	67	66 (Exterior)	Picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals.
C	72	71 (Exterior)	Developed lands, properties, or activities not included in Categories A and B above.
D	--	--	Undeveloped lands.
E	52	51 (Interior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals and auditoriums.

Source: Based on Table 1 of 23 CFR 772 as found in MDOT’s Noise Policy.

In most noise studies the applicable criterion is for exterior activity in Category B, which includes residential uses, recreation areas, schools, churches, and the like. Outside activity is emphasized because the shielding provided by a typical structure reduces exterior noise levels by more than 15 dBA, which is the difference in Categories B (exterior) and E (interior). This means that exterior noise levels are much more likely to be exceeded than interior levels. Thus, the test for

the M-15 corridor is Category B (residential, church, and school) areas exposed to noise levels at or above 66 dBA and with a density sufficient to potentially warrant noise mitigation. A review of aerial mapping and field review allowed the identification of all potentially sensitive areas that might reasonably be examined for noise mitigation.

Computer modeling was performed to predict the loudest hour noise levels based on the forecast 2025 traffic. The modeled noise levels discussed in the following paragraphs represent the noise conditions anticipated to be the loudest hourly levels based on the 2025 traffic forecast; they are not average conditions.

The TNM uses estimated traffic, by vehicle type, traffic speeds and geometry to determine future noise levels. Traffic was drawn from a separate technical effort that relied upon input from MDOT's statewide traffic model, the Southeast Michigan Council of Governments traffic model, and the Genesee County Metropolitan Planning Commission traffic model. Speeds on M-15 were determined by noting travel speeds during various field efforts, and, looking to the future, using anticipated posted speeds. For most of the corridor the posted speed is and will be 55 mph.

A simplified way of considering noise impacts is to understand that, as a rule, doubling the energy of sound (twice as much traffic, half as much distance to the traffic) results in about a 3 dBA sound level increase, a level undetectable by most people unless they are in a controlled laboratory setting. Thus, noticeable noise impacts typically result from a road project when the road is moved substantially closer to sensitive receptors, or if traffic more than doubles. Traffic is expected to increase on the order of 30 percent at the south end of the corridor and up to 80 percent in the north. This means that, all things being equal, noise levels would increase from current noise levels from 1 to just under 3 decibels under the No Action Alternative; in other words at a level barely detectable or not detectable at all. Sensitivity is more likely to arise when the road is moved closer to sensitive receptors, in combination with higher traffic volumes.

The frontage of M-15 is mostly residential with some commercial uses, plus several schools as noted. The 66 dBA criterion applies through the residential areas of the corridor and to the schools. Noise modeling for the project found that many homes are exposed to noise levels exceeding abatement criteria today and more will be in the future as traffic volumes grow. With the schools along M-15 are sufficiently distant from the road that interior noise effects are not an issue; exterior noise may be. The Montessori Center and the Louhelen Baha'i Center will be discussed separately below.

The TNM1.1 predicts noise levels based on roadway geometry, the location of sensitive receptors, and traffic information such as speed and the mix of vehicles. The corridor was divided into sections that have consistent roadway geometry and traffic. Table F2 lists the average daily traffic by section that was drawn from the computer modeling. (TNM output follows this text in Attachment 1.)

The peak hour volumes (Table F-3) assume a 10 percent peak hour percentage (peak hour traffic is 10 percent of daily traffic). Also assumed is that peak hour traffic will be split 60 percent in one direction on M-15 and 40 percent in the other. Traffic volumes in the peak direction were used in the modeling to show the worst case. Heavy trucks (more than six tires) were assumed to represent 3 percent of traffic in the peak hour, while medium trucks (six tires) represent 1 percent. Buses and motorcycle volumes were considered to be negligible. For build conditions, traffic volumes on M-15 were considered to be free flowing where speed is not constrained by lack of capacity. Heavy congestion reduces travel speed and reduces noise levels. Free flow speeds accurately reflect the loudest hour.

Table F-2
24-Hour Traffic Base for Transportation Noise Model

Average Daily Traffic		Existing	2025		
		2-lane	No-Action	5-Lane	Narrow
A1	I-69 to S. of Lippincott	12400	21900	22700	22700
A2	S. of Lippincott to Hill	12600	20800	21400	21400
B1	Hill to N. of E. Hegel	11300	18400	18800	18800
B2	N. of E. Hegel to Green	12100	18500	20200	20200
B3	Green to Kipp	12100	18500	20200	20200
C1	Kipp to Auten	12500	18600	20700	20700
C2	Auten to Groveland	12500	18600	20700	20700
D	Groveland to Wolfe	17000	21900	22900	22900
E	Wolfe to Oak Hill	19000	25100	25100	25100
F1	Oak Hill to N. of Hubbard	19000	25100	25100	25100
F2	N. Of Hubbard to I-75	27300	35200	35200	35200

Source: The Corradino Group

A “critical distance” was established using the TNM for each section of M-15. It represents the distance from the centerline of the road to the point where the projected noise level would drop below 66 dBA. Applying these distances to aerial mapping allowed a determination of how many homes would fall within the critical distance under 2025 build and no-build conditions.

The proposed alternative is a mix of 5-lane and narrow boulevard construction. Table F-4 shows the estimated critical distance for each link of M15 under No-Action, 5-lane, and Boulevard conditions. The table contents reflect the type of road proposed for each section, so that when totaled, the sum is the total impact for the full project length.

The result of this analysis found that 145 houses would be exposed to noise levels exceeding the 66 dBA criterion under 2025 no-build conditions compared to 175 homes with the proposed project. Because the future traffic is closer to more residences with the wider typical section of the proposed road, the number of affected residences is expected to be higher. The higher number is offset by the fact that some of the houses affected under no-build conditions would be subject to relocation under the proposed action. Noise abatement was then considered for those homes expected to be exposed to 66 dBA or more.

The test of whether noise mitigation should be pursued rests on whether such mitigation is “reasonable” and “feasible.” The “reasonable” test addresses whether noise mitigation makes sense. The “feasible” test relates to whether a measure is physically or institutionally possible.

A number of potential mitigation measures may be considered to reduce noises levels. These include lowering the roadway profile, prohibiting truck traffic, reducing traffic speeds, and constructing noise barriers. Lowering the roadway profile makes driveway access difficult in areas like the M-15 corridor, where much of the corridor is lined with single-family use or commercial nodes with direct driveway connections. Lowering the road may also require more

right-of-way. For these reasons, lowering the roadway profile is not considered feasible or reasonable.

Prohibiting truck traffic is not feasible because M-15 is a state trunkline. It is specifically designed to accommodate commercial traffic. Similarly, lowering the speed limits along M-15 for noise reduction runs counter to the purpose of moving people and goods in an efficient manner over the state highway system. M-15 already has a number of speed restrictions that are reflected in the noise modeling. Because M-15 is a state trunkline, MDOT is committed to maintaining speeds limits that allow safe and efficient travel, which means maintaining a 55 mph speed limit where possible.

Noise barriers consist of earthen berms or walls, or combinations of the two. Unless right-of-way is available for berms, noise walls are normally the mitigation technique of choice. Berms are cost-effective and can substantially reduce noise levels. However, they take up a lot of space. In the M-15 corridor such space does not exist. Right-of-way is not available for berms without additional relocations, historic impacts, and wetland impacts, so noise walls were evaluated.

In most cases noise walls are feasible unless they become so tall that wind loads become an engineering concern, so feasibility is generally not an issue. However, for M-15, reasonableness is difficult to achieve. Homes are not sufficiently dense to meet the reasonable test, which is based on a cost per dwelling unit protected (6 dBA reduction or more). In addition, experience indicates that noise barriers are not effective when they have gaps. Along most of M-15 gaps would have to be left in any noise barrier for driveway access. Finally, the general reaction to walls in front yards is often negative. For these reasons construction of berms and/or noise walls along M-15 is not considered reasonable at any location along the project and no noise mitigation is recommended.

Two locations have special conditions that need to be addressed – the Montessori Center in Ortonville and the Louhelen Baháí Center south of Atherton Road. The playground of the Montessori Center is now less than 100 feet from the driving lanes of M-15. The proposed project, as planned, could take property on the west side of M-15 in this area, such that the right-of-way limit would pass through the playground. Conversation with the owners/operators of the Center indicates that they had planned to remain, if the project is built. However, they had independently considered moving the playground to the rear of the building. It is believed that the playground may be moved or the Center may relocate to a more suitable location before design of the project begins. If the Center were unable to move the playground to the rear of the property, the Center would likely be acquired, if nothing else changed the situation first, as the lack of a playground compromises their Center's ability to function at the present location. Therefore, either the playground would be relocated or the Center would become a relocation.

The Louhelen Baháí Center represents a location where individuals and groups go to learn about faith. The grounds include meditative areas. These are generally located several hundred feet to the west of M-15. To keep noise in perspective, it is noted that the proposed roadway widening would occur to the east of the existing center line, away from the Louhelen Center. If nothing were done, traffic volumes in this area are expected to increase in the neighborhood of 70 percent which translates to about a two decibel increase in noise from today's conditions. By placing the additional lanes proposed for M-15 on the opposite side of the Baháí Center, noise is not an additional impact. Therefore, mitigation at the Louhelen Center is not considered as part of this proposed project.

Table F-3
Peak Hour/Peak Direction Traffic by Vehicle Type

Peak Hour / Peak Direction		(10% pk. hr. and 60% peak dir.)				2-lane					No-Action					5-lane and Narrow				
		2-lane	No-Action	5-Lane	Narrow	A	MT	HT	B	M	A	MT	HT	B	M	A	MT	HT	B	M
A1	I-69 to S. of Lippincott	744	1314	1362	1362	714	7	22	1	1	1261	13	39	1	1	1308	14	41	1	1
A2	S. of Lippincott to Hill	756	1248	1284	1284	726	8	23	1	1	1198	12	37	1	1	1233	13	39	1	1
B1	Hill to N. of E. Hegel	678	1104	1128	1128	651	7	20	1	1	1060	11	33	1	1	1083	11	34	1	1
B2	N. of E. Hegel to Green	726	1110	1212	1212	697	7	22	1	1	1066	11	33	1	1	1164	12	36	1	1
B3	Green to Kipp	726	1110	1212	1212	697	7	22	1	1	1066	11	33	1	1	1164	12	36	1	1
C1	Kipp to Auten	750	1116	1242	1242	720	8	23	1	1	1071	11	33	1	1	1192	12	37	1	1
C2	Auten to Groveland	750	1116	1242	1242	720	8	23	1	1	1071	11	33	1	1	1192	12	37	1	1
D	Groveland to Wolfe	1020	1314	1374	1374	979	10	31	1	1	1261	13	39	1	1	1319	14	41	1	1
E	Wolfe to Oak Hill	1140	1506	1506	1506	1094	11	34	1	1	1446	15	45	1	1	1446	15	45	1	1
F1	Oak Hill to N. of Hubbard	1140	1506	1506	1506	1094	11	34	1	1	1446	15	45	1	1	1446	15	45	1	1
F2	N. Of Hubbard to I-75	1638	2112	2112	2112	1572	16	49	1	1	2028	21	63	1	1	2028	21	63	1	1

Peak Hour / Off-Peak Dir.		(10% pk. hr. and 40% off-peak dir.)				2-lane					No-Action					5-lane and Narrow				
		2-lane	No-Action	5-Lane	Narrow	A	MT	HT	B	M	A	MT	HT	B	M	A	MT	HT	B	M
A1	I-69 to S. of Lippincott	496	876	908	908	476	5	15	1	1	841	9	26	1	1	872	9	27	1	1
A2	S. of Lippincott to Hill	504	832	856	856	484	5	15	1	1	799	8	25	1	1	822	9	26	1	1
B1	Hill to N. of E. Hegel	452	736	752	752	434	5	14	1	1	707	7	22	1	1	722	8	23	1	1
B2	N. of E. Hegel to Green	484	740	808	808	465	5	15	1	1	710	7	22	1	1	776	8	24	1	1
B3	Green to Kipp	484	740	808	808	465	5	15	1	1	710	7	22	1	1	776	8	24	1	1
C1	Kipp to Auten	500	744	828	828	480	5	15	1	1	714	7	22	1	1	795	8	25	1	1
C2	Auten to Groveland	500	744	828	828	480	5	15	1	1	714	7	22	1	1	795	8	25	1	1
D	Groveland to Wolfe	680	876	916	916	653	7	20	1	1	841	9	26	1	1	879	9	27	1	1
E	Wolfe to Oak Hill	760	1004	1004	1004	730	8	23	1	1	964	10	30	1	1	964	10	30	1	1
F1	Oak Hill to N. of Hubbard	760	1004	1004	1004	730	8	23	1	1	964	10	30	1	1	964	10	30	1	1
F2	N. Of Hubbard to I-75	1092	1408	1408	1408	1048	11	33	1	1	1352	14	42	1	1	1352	14	42	1	1

Table F-4
Noise – Critical Distance and Affected Receptors

Section	From	To	Sheet	No Action		5-Lane		Nar. Blvd.	
				Dist.	#	Dist.	#	Dist.	#
F2	I-75	Hubbard	1	114	0	129	2		
	Average Daily Traffic	Existing		114	3	129	11		
Subtotal					3		13		
F1	Hubbard	Oak Hill	3	127	5			156	4
			4	127	12			156	9
			5	127	8			156	6
			6	127	2			156	3
Subtotal					27				22
E2	Oak Hill	Seymour L.	7	127	0			156	0
			8	127	3			156	2
Subtotal					3				2
E1	Seymour L.	Brandon H.S.	9	127	3	141	4		
			10	127	14	141	14		
			11	127	17	141	17		
			12	127	1	141	1		
Subtotal					35		36		
D	Brandon H.S.	Groveland	13	87	0			121	0
			14	87	0			121	0
			15	87	1			121	1
Subtotal					1				1
C2	Groveland	Auten	16	123	1	123	0		
Subtotal					1		0		
C1	Auten	Kipp	17	123	3			160	3
			18	123	4			160	4
			19	123	1			160	6
Subtotal					8				13
B3	Kipp	Green	20	123	2			159	13
Subtotal					2				13
B2	Green	E. Hegel	21	80	0	99	0		
			22	80	4	99	5		
			23	80	13	99	11		
Subtotal					17		16		
B1	E. Hegel	Hill	24	123	2			154	0
			25	123	4			154	5
			26	123	2			154	2
Subtotal					8				7
A2b	Hill	Maple	27	131	1			163	1
			28	131	6			163	4
Subtotal					7				5
A2a	Maple	Montague	29	131	16	148	18		
			30	131	6	148	13		
			31	131	6	148	13		
			32	131	2	148	2		
Subtotal					30		46		
A1	Montague	I-69	32	105	1	105	1		
			33	105	2	105	0		
Subtotal					3		1		
TOTAL					145		175		

Attachment 1
Transportation Noise Model Output

TCG
mewman

6 March 2001
TNM 1.1
Calculated with TNM 1.1

RESULTS: SOUND LEVELS
PROJECT: M-15

RUN: **Do Nothing 2025**
BARRIER DESIGN: None

Average pavement type shall be used
unless a State highway agency
substantiates the use of a different type
with approval of FHWA.

ATMOSPHERICS: 68 deg F, 50% RH

Receiver Name	No.	#DUs	Existing LAeq1h (dBA)	LAeq1h Calculated (dBA)	Critical Noise (dBA)	No Barrier Increase over existing Calculated (dB)	Crit. Noise Subst. Incr (dB)	Type Impact
RF2-60'	1	1	0	70.9	66	70.9	0	Snd Lvl
RF2-70'	2	1	0	69.7	66	69.7	0	Snd Lvl
RF2-114'	3	1	0	65.9	66	65.9	0	---
RF1-60'	6	1	0	74.7	66	74.7	0	Snd Lvl
RF1-70'	7	1	0	73.4	66	73.4	0	Snd Lvl
RF1-127'	8	1	0	65.8	66	65.8	0	---
RE-60'	10	1	0	72	66	72	0	Snd Lvl
RE-70'	11	1	0	70.7	66	70.7	0	Snd Lvl
RE-127'	12	1	0	65.9	66	65.9	0	---
RD-60'	14	1	0	68.9	66	68.9	0	Snd Lvl
RD-70'	15	1	0	67.6	66	67.6	0	Snd Lvl
RD-87'	16	1	0	65.9	66	65.9	0	---
RC2-60'	18	1	0	71.9	66	71.9	0	Snd Lvl
RC2-70'	19	1	0	70.6	66	70.6	0	Snd Lvl
RC2-123'	20	1	0	65.9	66	65.9	0	---
RC1-60'	22	1	0	71.9	66	71.9	0	Snd Lvl
RC1-70'	23	1	0	70.6	66	70.6	0	Snd Lvl
RC1-123'	24	1	0	65.9	66	65.9	0	---
RB3-60'	26	1	0	71.9	66	71.9	0	Snd Lvl
RB3-70'	27	1	0	70.6	66	70.6	0	Snd Lvl
RB3-123'	28	1	0	65.9	66	65.9	0	---
RB2-33'	30	1	0	73.5	66	73.5	0	Snd Lvl
RB2-53.5'	31	1	0	69.1	66	69.1	0	Snd Lvl
RB2-80'	32	1	0	65.9	66	65.9	0	---
RB1-60'	34	1	0	71.9	66	71.9	0	Snd Lvl
RB1-70'	35	1	0	70.6	66	70.6	0	Snd Lvl
RB1-123'	36	1	0	65.9	66	65.9	0	---
RA2-60'	38	1	0	72.4	66	72.4	0	Snd Lvl
RA2-70'	39	1	0	71.1	66	71.1	0	Snd Lvl
RA2-131'	40	1	0	65.9	66	65.9	0	---
RA1-60'	42	1	0	71.8	66	71.8	0	Snd Lvl
RA1-70'	43	1	0	70.1	66	70.1	0	Snd Lvl
RA1-105'	44	1	0	65.9	66	65.9	0	---

TCG
mewman

6 March 2001
TNM 1.1
Calculated with TNM 1.1

RESULTS: SOUND LEVELS
PROJECT: M-15
RUN: **Five Lane 2025**
BARRIER DESIGN: None

Average pavement type shall be used
unless a State highway agency
substantiates the use of a different type
with approval of FHWA.

ATMOSPHERICS: 68 deg F, 50% RH

Receiver Name	No.	#DUs	Existing LAeq1h (dBA)	LAeq1h Calculated (dBA)	Critical Noise (dBA)	No Barrier Increase over existing Calculated (dB)	Crit. Noise Subst. Incr (dB)	Type Impact
RF2-60'	1	1	0	70.9	66	70.9	0	Snd Lvl
RF2-70'	2	1	0	69.7	66	69.7	0	Snd Lvl
RF2-114'	3	1	0	65.9	66	65.9	0	----
RF1-60'	6	1	0	77.7	66	77.7	0	Snd Lvl
RF1-70'	7	1	0	75.9	66	75.9	0	Snd Lvl
RF1-141'	8	1	0	65.9	66	65.9	0	----
RE-60'	10	1	0	75	66	75	0	Snd Lvl
RE-70'	11	1	0	73.2	66	73.2	0	Snd Lvl
RE-141'	12	1	0	65.9	66	65.9	0	----
RD-60'	14	1	0	71.8	66	71.8	0	Snd Lvl
RD-70'	15	1	0	70.1	66	70.1	0	Snd Lvl
RD-105'	16	1	0	65.9	66	65.9	0	----
RC2-60'	18	1	0	71.9	66	71.9	0	Snd Lvl
RC2-70'	19	1	0	70.6	66	70.6	0	Snd Lvl
RC2-123'	20	1	0	65.9	66	65.9	0	----
RC1-60'	22	1	0	75.4	66	75.4	0	Snd Lvl
RC1-70'	23	1	0	73.6	66	73.6	0	Snd Lvl
RC1-145'	24	1	0	65.9	66	65.9	0	----
RB3-60'	26	1	0	75.3	66	75.3	0	Snd Lvl
RB3-70'	27	1	0	73.5	66	73.5	0	Snd Lvl
RB3-143'	28	1	0	65.9	66	65.9	0	----
RB2-60'	30	1	0	71.3	66	71.3	0	Snd Lvl
RB2-70'	31	1	0	69.6	66	69.6	0	Snd Lvl
RB2-99'	32	1	0	65.9	66	65.9	0	----
RB1-60'	34	1	0	75	66	75	0	Snd Lvl
RB1-70'	35	1	0	73.2	66	73.2	0	Snd Lvl
RB1-140'	36	1	0	65.9	66	65.9	0	----
RA2-60'	38	1	0	75.5	66	75.5	0	Snd Lvl
RA2-70'	39	1	0	73.8	66	73.8	0	Snd Lvl
RA2-148'	40	1	0	65.9	66	65.9	0	----
RA1-60'	42	1	0	71.8	66	71.8	0	Snd Lvl
RA1-70'	43	1	0	70.1	66	70.1	0	Snd Lvl
RA1-105'	44	1	0	65.9	66	65.9	0	----

TCG
mewman

6 March 2001
TNM 1.1
Calculated with TNM 1.1

RESULTS: SOUND LEVELS

PROJECT: M-15

RUN: **Narrow Boulevard 2025**

BARRIER DESIGN: None

ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used
unless a State highway agency
substantiates the use of a different type
with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h (dBA)	LAeq1h Calculated (dBA)	Critical Noise (dBA)	No Barrier Increase over existing Calculated (dB)	Crit. Noise Subst. Incr (dB)	Type Impact
RF2-86'	1	1	0	72.7	66	72.7	0	Snd Lvl
RF2-96'	2	1	0	71.1	66	71.1	0	Snd Lvl
RF2-143'	3	1	0	65.9	66	65.9	0	----
RF1-86'	6	1	0	76.6	66	76.6	0	Snd Lvl
RF1-96'	7	1	0	74.9	66	74.9	0	Snd Lvl
RF1-156'	8	1	0	65.9	66	65.9	0	----
RE-86'	10	1	0	73.9	66	73.9	0	Snd Lvl
RE-96'	11	1	0	72.2	66	72.2	0	Snd Lvl
RE-156'	12	1	0	65.9	66	65.9	0	----
RD-86'	14	1	0	70.8	66	70.8	0	Snd Lvl
RD-96'	15	1	0	69.2	66	69.2	0	Snd Lvl
RD-121'	16	1	0	65.9	66	65.9	0	----
RC2-86'	18	1	0	74.3	66	74.3	0	Snd Lvl
RC2-96'	19	1	0	72.6	66	72.6	0	Snd Lvl
RC2-160'	20	1	0	65.9	66	65.9	0	----
RC1-86'	22	1	0	74.3	66	74.3	0	Snd Lvl
RC1-96'	23	1	0	72.6	66	72.6	0	Snd Lvl
RC1-160'	24	1	0	65.9	66	65.9	0	----
RB3-86'	26	1	0	74.2	66	74.2	0	Snd Lvl
RB3-96'	27	1	0	72.5	66	72.5	0	Snd Lvl
RB3-159'	28	1	0	65.9	66	65.9	0	----
RB2-86'	30	1	0	70.3	66	70.3	0	Snd Lvl
RB2-96'	31	1	0	68.7	66	68.7	0	Snd Lvl
RB2-118.5	32	1	0	65.9	66	65.9	0	----
RB1-86'	34	1	0	73.9	66	73.9	0	Snd Lvl
RB1-96'	35	1	0	72.2	66	72.2	0	Snd Lvl
RB1-154'	36	1	0	65.9	66	65.9	0	----
RA2-86'	38	1	0	74.5	66	74.5	0	Snd Lvl
RA2-96'	39	1	0	72.8	66	72.8	0	Snd Lvl
RA2-163'	40	1	0	65.9	66	65.9	0	----
RA1-86'	42	1	0	70.8	66	70.8	0	Snd Lvl
RA1-96'	43	1	0	69.2	66	69.2	0	Snd Lvl
RA1-121'	44	1	0	65.9	66	65.9	0	----